Amendments to the Drawings

Figures 1 through 7 have been amended to include the legend "Prior Art." No new matter is being introduced

Attachment: Replacement Sheet
Annotated Marked-Up Drawings

REMARKS

Claims 1, 3-34, and 36-68 are pending in the application. Claims 1, 3-34, and 36-68 stand rejected. Independent claims 1, 34, and 62 are being amended. Dependent claims 6-7, 9-11, 13, 15-17, 21-25, 29, 34, 39, 42, 46, 49-50, 57-58, 62, and 67-68 are also being amended . No new matter is believed introduced by way of the amendment.

In response to the present Office Action, Figures 1-7 are being amended to include the term "Prior Art." No new matter is being introduced by way of the amendment. Replacement Drawings, which include the Amendment to Figures 1-7, are being filed herewith.

Claims 29 and 62 were objected to because they included the term "managed echo," while they should have contained the term "managed noise characteristic". These claims have been corrected in the Claim Listing above to include the term "managed noise characteristic." Similarly, independent claims 1 and 34 have also been amended to include the term "managed noise characteristic." No new matter is believed to be introduced by way of the amendment.

Rejections Under 35 U.S.C. §102(e)

Claims 1, 3, 13-15, 16-18, 20-21, 25-28, 34, 36, 46-48, 49-51, 53-54, and 58-61 were rejected under 35 U.S.C. §102(e) as being unpatentable over Yue *et al.* (U.S. Patent Number 6,026,356), hereinafter referenced as "Yue."

Claim 1 as amended in the Claim Listing above recites,

> In a communication system for transmitting digital signals using a compression code comprising a predetermined plurality of parameters including a first parameter, said parameters representing an audio signal, said audio signal having a plurality of audio characteristics including a noise characteristic, said compression code being decodable by a plurality of decoding ~~steps~~ procedures, apparatus for managing the noise characteristic comprising:
>
> ~~a processor~~ a reading unit responsive to said compression code of said digital signals to read at least said first parameter, ~~and~~
>
> responsive to said compression code and said first parameter, a generation unit to generate an adjusted first parameter in a presence of speech, noise, and combination thereof; ~~and~~
>
> a replacement unit to replace said first parameter with said adjusted first parameter; and
>
> a transmitter to transmit said digital signal with managed noise characteristic.

where the strikethrough words indicate elements being deleted by way of amendment, and the underlined words indicate elements being added by way of amendment. Support for the amendment can be found on at least page 65, lines 4-13 as originally filed and illustrated in at least corresponding Fig. 33.

Referring to Applicants' Fig. 33, a preferred embodiment for network noise reduction is illustrated. A decoder 20 performs partial or full decoding of the digital speech signal, producing noisy speech output $y(n)$. A voice activity function is also incorporated into the Fig. 33 embodiment. During silence periods, detected by the voice activity detector, the example embodiment performs the maximum attenuation on the signal. Additionally, at the beginning and trailing ends of the speech, the input to component 142 (γ_c) is be allowed to rise and fall appropriately. During voiced speech, the long term predictor (LTP) excitation output contributes to a large amount of the resulting signal power and has a better signal to noise ratio (SNR) relative to the fixed codebook (FCB) excitation output. Hence, during voiced speech, the example embodiment can perform a limited amount of attenuation of the FCB output. Thus, the example embodiment performs noise reduction in response to detection of "speech, noise, and combination thereof."

In contrast, Yue classifies successive data frames into frames containing speech sounds and non-speech sounds and only performs noise reduction in response to detection of non-speech sounds. As Yue describes in column 5, lines 45-49, if speech is detected in a data frame, that data frame is passed to the output line without modification. If the data frame is classified as containing non-speech sounds (e.g., background noise), that data frame is passed to the signal processing device 100.

Thus, Applicants' invention as claimed in amended Claim 1 distinguishes over Yue in that it generates "an adjusted first parameter in a presence of speech, noise, and combination thereof." Yue neither discloses performing attenuation during voiced speech, nor does Yue's system contain the means to perform attenuation during voiced speech.

In view of the foregoing, Applicants respectfully submit that Claim 1 as now amended overcomes the rejection under 35 U.S.C. §102(e).

Independent Claims 34 and 62 are being amended in the Claim Listing above to include similar elements as now amended Claim 1 and should be allowed for similar reasons.

Because Claims 3, 13-15, 16-18, 20-21, and 25-28 depend from amended claim 1, and Claims 36, 46-48, 49-51, 53-54, and 58-61 depend from amended claim 34, Applicants respectfully submit that these claims should be allowed for at least the same reasons as the base claims from which they depend.

Rejections Under 35 U.S.C. §103(a)

Claims 4-5, 22-24, 37-38, and 55-57 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Swaminathan *et al.* (U.S. Patent Number 5,495,555), hereinafter referenced as "Swaminathan."

Claims 6, 9, 39, and 42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Oshikiri *et al.* (U.S. Patent Number 5,878,387), hereinafter referenced as "Oshikiri."

Claims 7-8 and 40-41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Ertem *et al.* (U.S. Patent Number 6,453,289), hereinafter referenced as "Ertem."

Claims 7-8 and 40-41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Chen *et al.* (U.S. Patent Number 5,615,289), hereinafter referenced as "Chen."

Claims 26, 28-31, and 57-61 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Applicants' Admitted Prior Art, hereinafter referenced as "AAPA."

Claims 67-68 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yue in view of Malvar *et al.* (U.S. Patent Number 6,029,126), hereinafter referenced as "Malvar."

These rejected claims are dependent from amended Claims 1, 34, or 62. As explained in the previous section, Yue does not teach all of the elements recited in now amended base Claims 1 and 34, namely, performing noise reduction "in a presence of speech, noise, and combination thereof." These limitations of Yue are not cured by Swaminathan, Oshikiri, Ertem, Chen, AAPA, or Malvar. Therefore, without discussing the merits of the reasons behind the rejection of these claims, it is Applicants' position that these claims are allowable over Yue in view of Swaminathan, Oshikiri, Ertem, Chen, AAPA, or Malvar. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of these claims be withdrawn.

Rejections Under 35 U.S.C. §112, First Paragraph

Claims 1 and 3-28 were rejected under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement because claim 1 is said to be a "single means" claim.

Corrections to claim 1 have been made in the Claim Listing above. Accordingly, Claim 1 is believed to overcome the rejection under 35 U.S.C. 112, first paragraph. Therefore, Applicants respectfully request withdrawal of the rejection of this claim.

Because Claims 3-28 depend from amended claim 1, Applicants respectfully submit that these claims should be allowed for a least the same reasons as base Claim 1.

Information Disclosure Statement

An Information Disclosure Statement (IDS) is being filed concurrently herewith. Entry of the IDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all now pending claims, claims 1, 3-34, and 36-68 are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Fig. 1 PRIOR ART

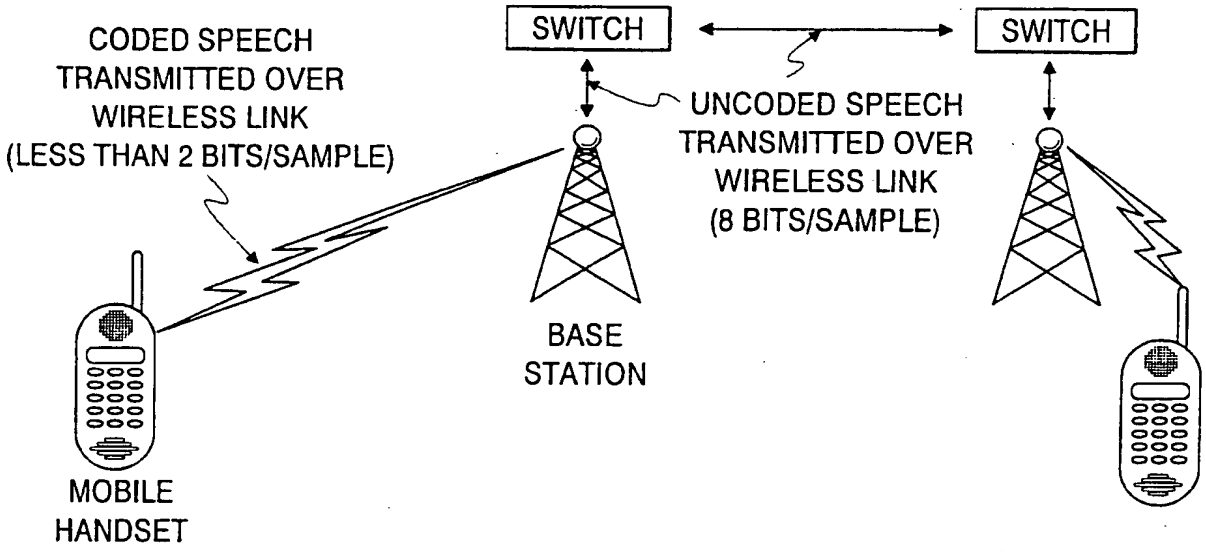


Fig. 2 PRIOR ART

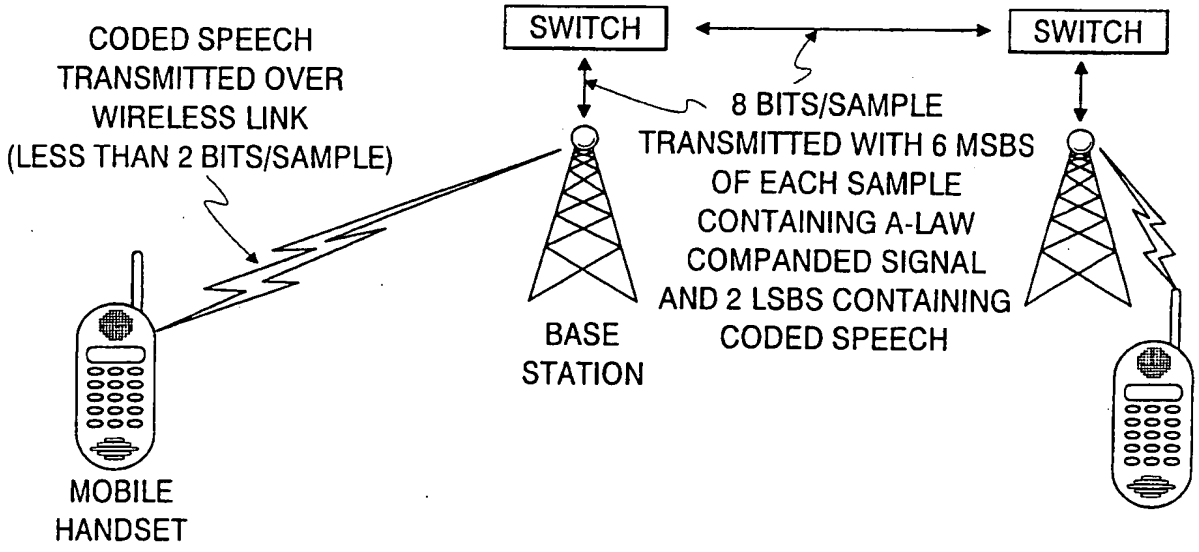


Fig. 3

PRIOR ART

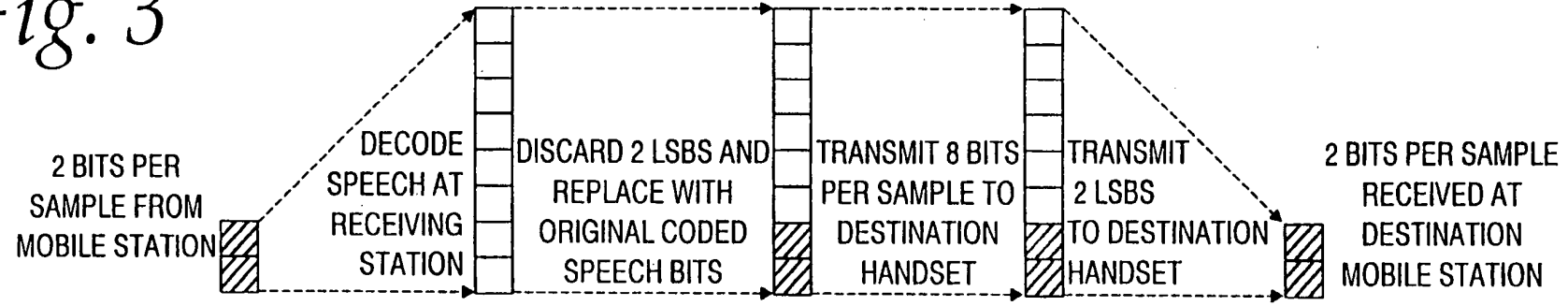
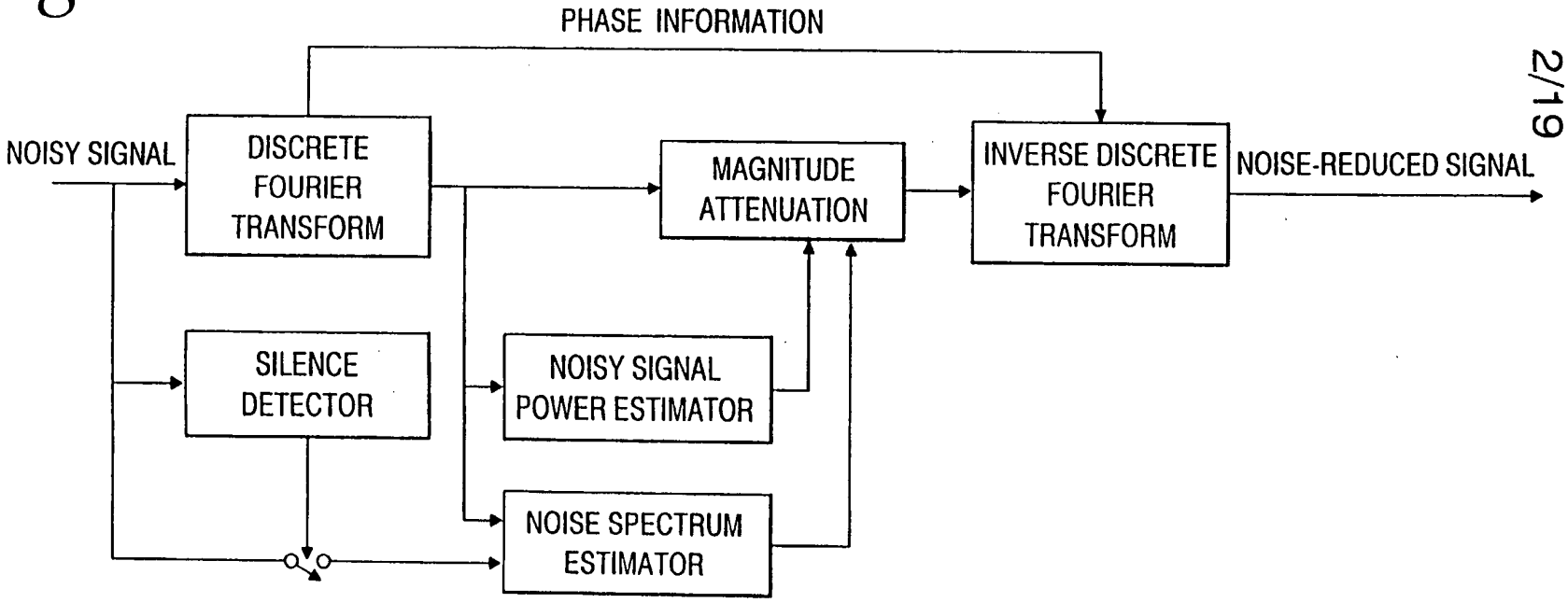


Fig. 4



PRIOR ART

Fig. 5 PRIOR ART

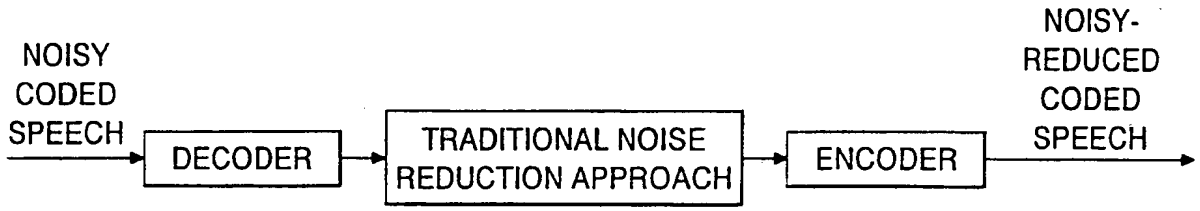


Fig. 6 PRIOR ART

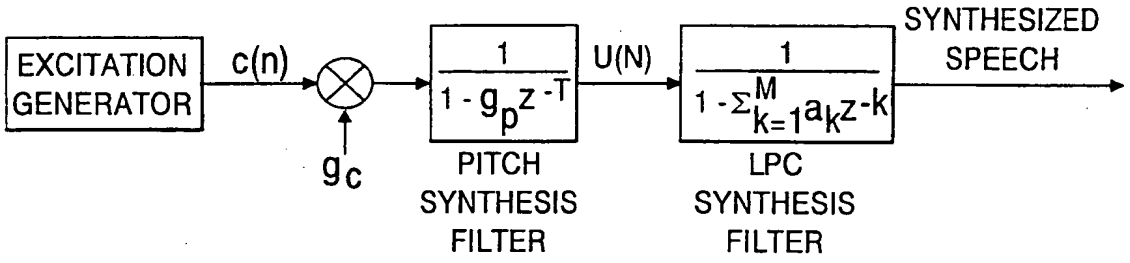


Fig. 7 PRIOR ART